

**REMARKS****The Claimed Invention**

The claimed invention is directed to antigen presenting vesicles.

**The Pending Claims**

Prior to entry of the above amendments, Claims 13-14, and 16-20 are pending.

**The Office Action**

Claims 13-14 and 16 are rejected under 35 USC § 102(b) over Harding et al.

Claims 13 and 15 (sic) are rejected under 35 USC § 102(b) over Amigorena et al.

Claims 18-20 are rejected under 35 USC § 112, second paragraph.

**Amendments**

Claim 18 has been canceled and Claims 19 and 20 amended. Claim 19 has been amended to change the dependency to a currently pending claim and Claim 20 has been amended as requested by the Examiner to the location of the Class II MHC antigens.

No new matter is introduced by the amendments and the Examiner is respectfully requested to enter them

**Response to the objections and rejections**

In the response that follows, the Examiner's individual rejections are provided in full text, as identified by indented small bold print, followed by Applicant's response.

**35 U.S.C. 102(b) Rejection**

**Claims 13-14 and 16 are rejected under 35 USC § 102(b) as being anticipated by Harding et al. (J. Immunology, 151:3988-3998, 1993, of record).**

This rejection is respectfully traversed as to Claims 14 and 16 because these claims specifically recite that the vesicles are obtained by recovering a 70,000 x g pellet obtained by differential centrifugation. As the Examiner noted

in the official action mailed April 21, 2004, "Harding teaches the differential centrifugation of the membrane-containing fractions over a Percoll gradient at 100,000 x g, which is greater than the 70,000 x g recited in claims 14 and 16 and will pellet out all material obtainable at 70,000 x g." Thus, the pellet obtained by Harding et al contains materials that are in addition to the claimed isolated antigen presenting vesicles; in other words the product obtained is contaminated with other materials and does not meet the limitations of the claims. By extrapolation to Claim 13, there is no teaching in Harding et al as to how to obtain the claimed isolated antigen presenting materials free of their natural surroundings. The only product taught by Harding et al is derived from the 100,000 x g pellet.

Accordingly, the Examiner is respectfully requested to withdraw this rejection.

**Claims 13 and 15 (sic) are rejected under 35 USC § 102(b) as being anticipated by Amigorena et al (Nature, 369:113-120, 1994, of record).**

In regard to Claim 15, this claim was previously cancelled. The rejection as to Claim 13 is respectfully traversed because Amigorena does not suggest that an antigen presenting vesicle released into the extracellular milieu by a B lymphocyte and thus could be a source for isolation of such vesicles. Prior to Applicants invention, it was not known that B cells release vesicles extracellularly, and that these vesicles therefore can be isolated and used as immunogens. Applicants stress that the Amigorena reference relates exclusively to the transport of class II molecules to the plasma membrane through the Golgi (*see* for example page 117 of Amigorena et al.). Secretion or release of the vesicles is not mentioned or even suggested. The invention results from the totally unexpected discovery that B cells release vesicles, that such vesicles can be isolated, and that these vesicles exhibit high immunogenic properties.

Accordingly, the Examiner is respectfully requested to withdraw this rejection.

**35 USC 112, second paragraph**

This rejection has been avoided by cancellation of Claim 18 and

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amendment of Claims 19 and 20. Accordingly, the Examiner is respectfully requested to withdraw this rejection.

**CONCLUSION**

In view of the above amendment and remarks, it is submitted that this application is now ready for allowance. Early notice to that effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (831) 648-3090 X103.

Respectfully submitted,

Dated: April 19, 2005



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